A New Addition to the Corpus of Organology:

A Proto-Elamite Harp (*ca. 3200-2600 BC*)

in relation to Sumerian contexts

By: Richard Dumbrill

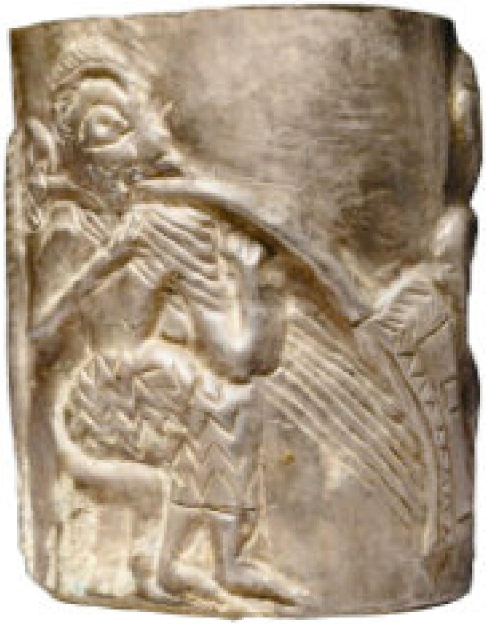


Figure 1. Repoussé and chased silver drinking(?) vessel, approx. 850 x 640 mm.

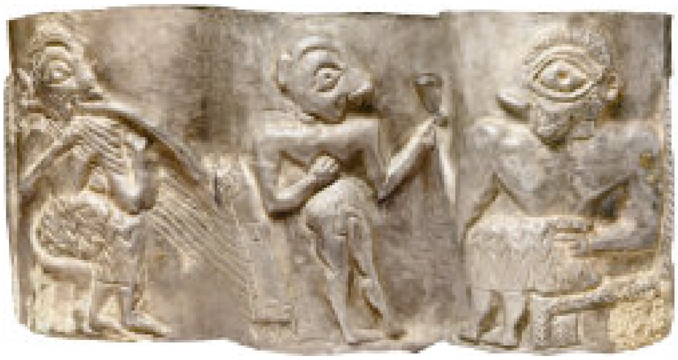


Figure 2. development of the three scenes on the vessel (with emendations to the bottom part of the harp and of the depicted drinking vessel).

This object is part of the Mahboubian collection of Elamite items. Doctor Benjamin Mahboubian carried out over one hundred excavations, from the nineteen-thirties onward. He passed away in Tehran, on September the twenty-third, 1968, the day after his hundredth birthday. Roya, granddaughter of the founder, kindly offered it to my scrutiny and gave me the rights for its publication for which I am very grateful.

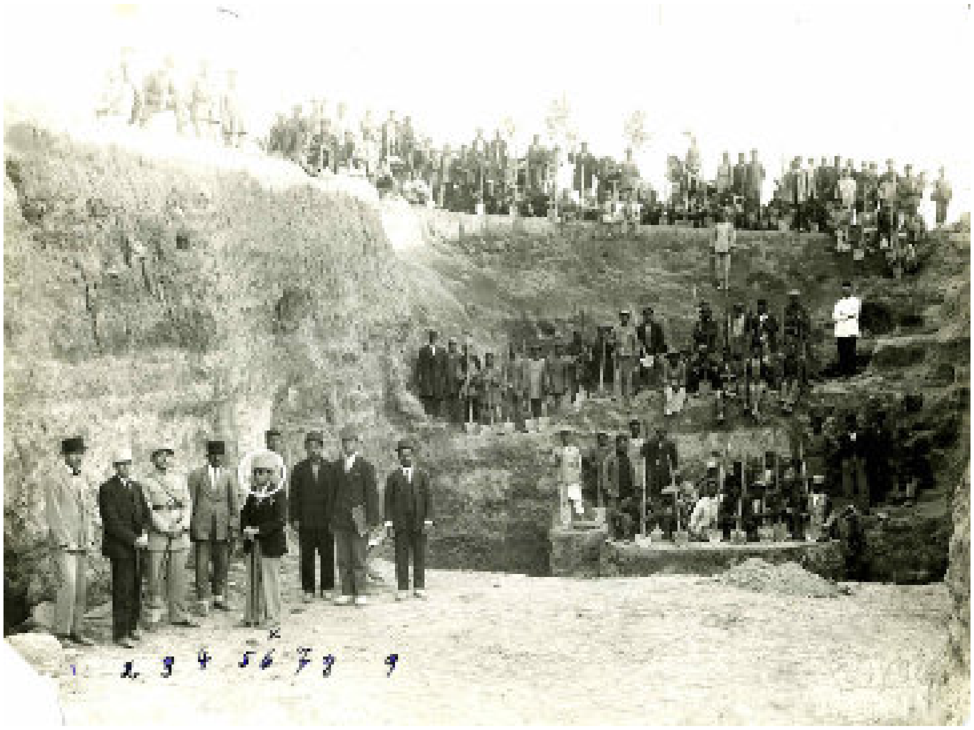


Figure 3. Dr. Mahboubian (encircled) in one of his excavations in the nineteen-thirties.

This small drinking vessel is made from a thin sheet of silver, around half a millimetre thick. The technique used for the depiction of the scene is both repoussé for volumes and chasing for details. The joining is almost invisible to the naked eye. No metal analysis was made.

One would be forgiven for ascribing the scene to a variation of Sumerian art. While this may be true for the general outlines of bodies depicted, specific details conclude to a distinct and conspicuous form of Elamite art which might have preceded its Sumerian parallel.

Although similar scenes are known both to Sumerian and Elamite cultures, we may agree that they are contemporaneous with on being from the Early Dynastic II period (2900-2350) in Sumer, and the other being the Proto-Elamite period (3100-2600) in Elam, placing Elamite art, possibly at the origins of Sumerian stylistics.

Sumerian Typology in the Early Dynastic II (2750-2450) and III (2600-2350) Periods

The scene depicted on the vessel is know to both cultures at the same periods. Two characters share a drink, one of a higher status, and perhaps gender, than the other while a musician entertains them. With Sumerian art, the instruments are simple medium-sized arched harps fitted with six or more strings and with a small boviform lyre with also six or more stings. With the only two known examples from Elam, the instrument are specific to that culture and would therefore be classified as 'Elamite harps'.

In the example to the left, the figure to the right is sitting on a chair/stool, is bearded and has long hair. He is probably a king or a god. The figure facing him might be a woman, or is of a lower rank but wears long hair. Both wear a clearly defined belt. She or he hands a vessel to the king/god. In contrast, the harpist on the left has medium length hair and has no belt. However, in in all three cases they wear the same style of kilt.

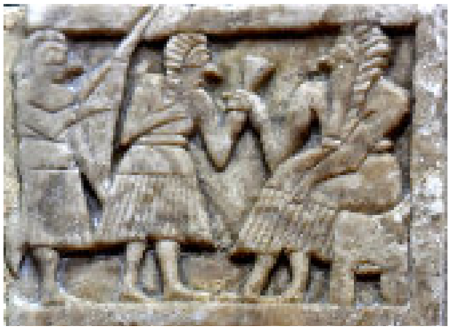


Figure 4. Wall plaque from Khafajah, temple of Sin. Iraq Museum. Early Dynastic II (2750-2450).

The next example to the left represents an identical scene with the differences that the drinking partner of the king/god is a bearded male and so is the harpist. The harpist has a belt unlike with the previous depiction. The harp is less angular in shape than the one in figure 4.

The king/god hold a palm in his left hand which would be a fly swatter.

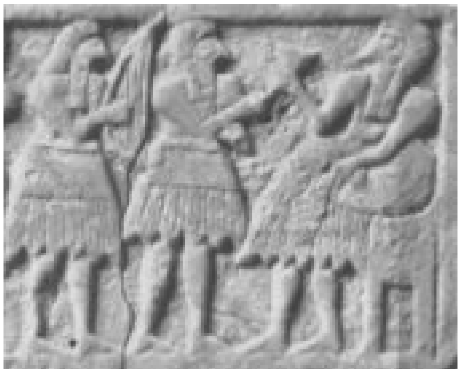


Figure 5. Wall plaque from Khafajah, Oval Temple. Mesilim Period (2600–2350). Iraq Museum IM 12661.

This wall plaque differs from the previous in that the instrument is a boviform lyre which is fitted with seven strings. The seated king/deity holds a palm/fly swatter and holds a drinking vessel. He wears a toga and sits on a different style of chair. The character to his left is a bold servant wearing a kilt.

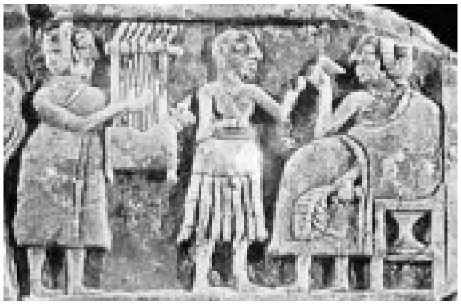


Figure 6. Wall plaque from the Inanna Temple at Nippur. Misilim period. (2600–2350). Iraq Museum IM 66157

The musician also wears a toga and a hair style similar with the king's/god's which might indicate equality of rank.

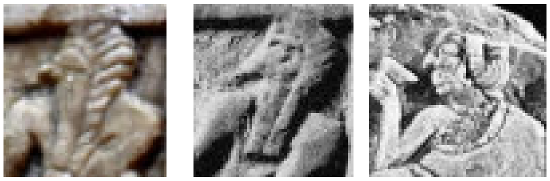

a b c

Figure 7. Facial styles

For these three Sumerian examples, two from Khafajah and one from Nippur, we note the following facial differences:

Both faces from Khafajah (a and b) are stylistically similar. The Nippur example (c) differs as it shows a more realistic shape, wears a necklace and has a different hair style. These differences may indicate geographic or chronological distinctions with the Nippur example being more recent or towards the end of the Early-Dynastic II period (2900 – 2350).

Instruments depicted in a and b are harps. In c, the represented instrument is a small boviform lyre. In these three cases the number of strings is six or seven strings. However, one may not come to the conclusion that they were tuned diatonically (a scale with the inclusion of a semitone) but more probably anhemitonically (a scale without semitones) as would have been the practice at that time.

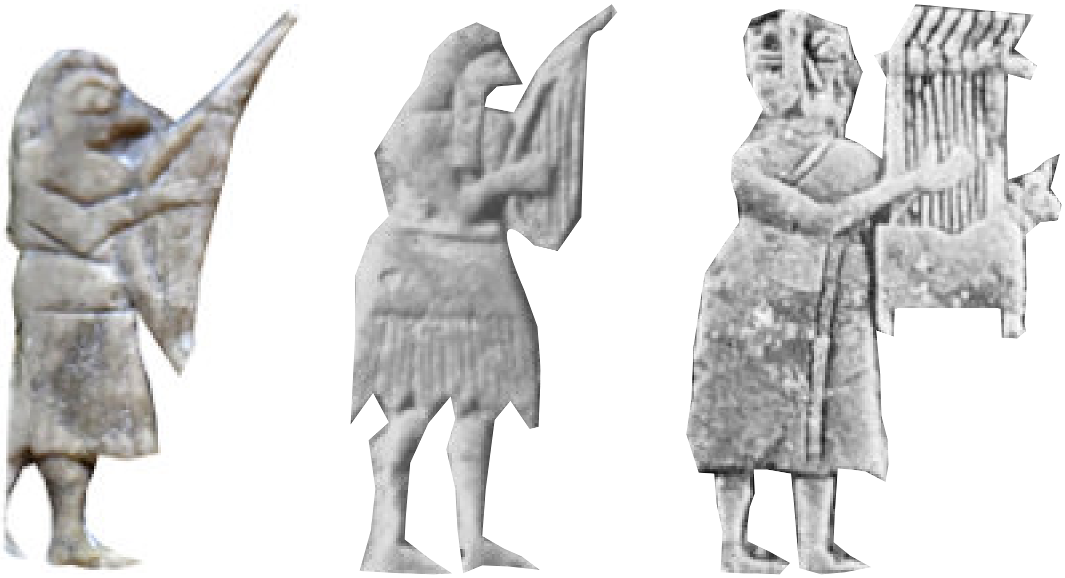

a b c

Figure 8. Organological differences

There are other occurrences of this particular scene:

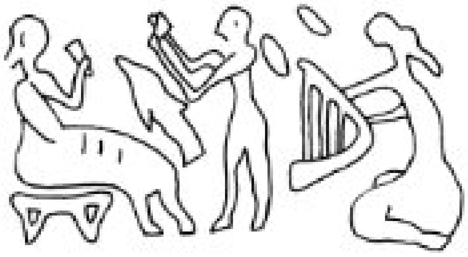


Figure 9. Impression from a seal cylinder, Ur, ED II.

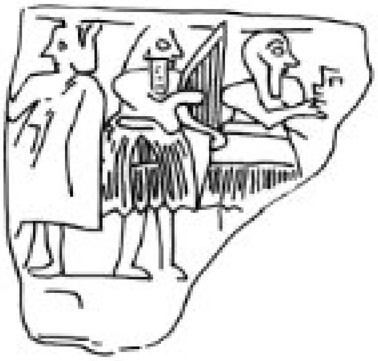


Figure 10. From a stone plaque, Kish, ED II.

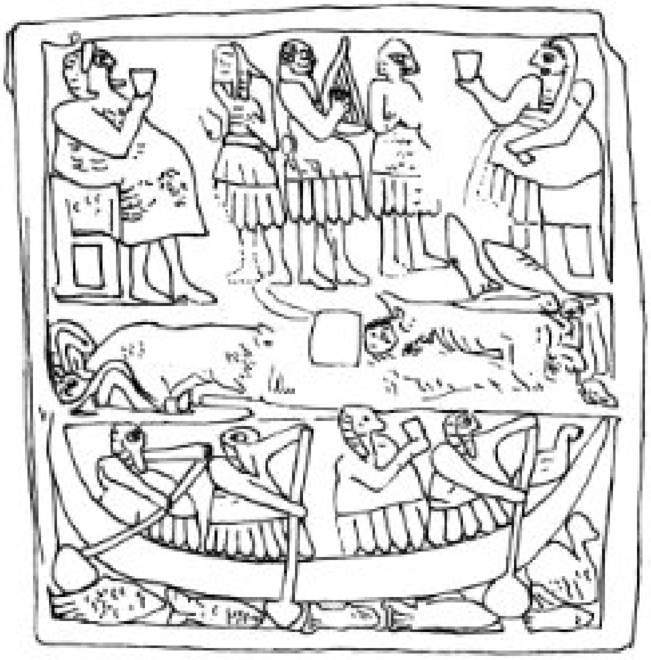


Figure 11. Stone plaque from Kish. ED II.

Elamite typology for the Proto (3100-2600) and Palaeo-Elamite (2600-2400) Periods

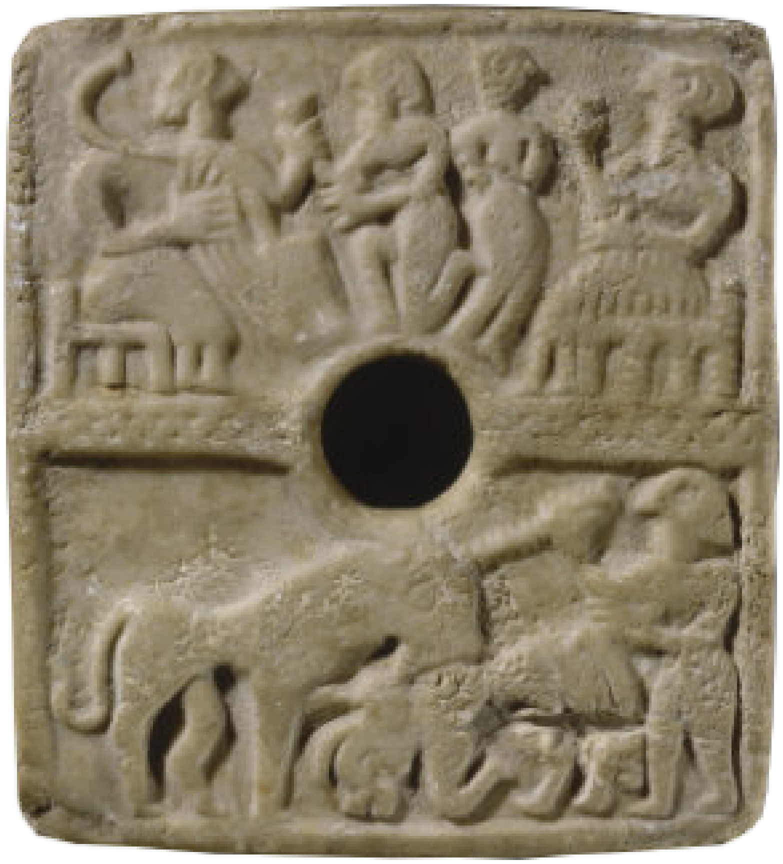


Figure 12. Alabaster Elamite plaque. Susa, Palaeo-Elamite. Louvre sb 41.

This remarkable plaque from Susa depicts a style for the treatment of faces which would predate the ED II Sumerian types, on account of the highly stylised renderings which might indicate antecedence although it is dated as palaeo Elamite. This stylisation is also present on the drinking vessel, object of the present article. The upper register Depicts a scene similar to those on the Sumerian plaques. However, in the Elamite plaque the king/god and the musician each have their own attendants handing them drinking vessels. Additionally, the representation of the character's bodies are not as angular as with the Sumerian paradigm although such angularity is clearly defined with the silver drinking vessel.

A few decades ago, I was puzzled by the depiction of the string instrument on this plaque and undertook what I believed at that time would have been the correct interpretation (Figure 13 a below). Margaux Bousquet was wiser and drew the instrument as it stood on the plaque (Figure 13 b) as seen below.

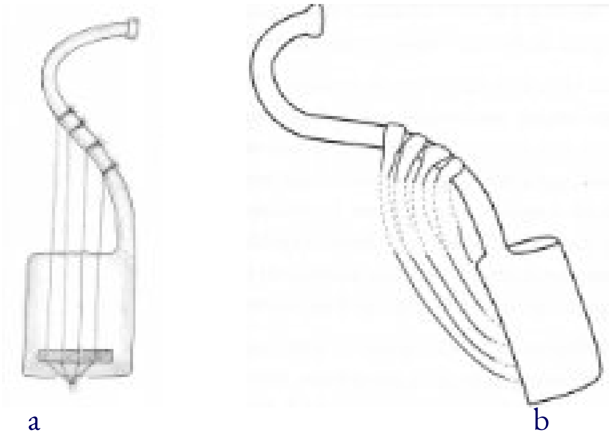


Figure 13. a) my erroneous interpretation. b) Margaux Bousquet's drawing

The answer to the atypical morphology of the instrument was finally solved when Roya Mahboubian presented me with this remarkable Proto-Elamite silver drinking vessel that we shall now analyse from our drawings below.

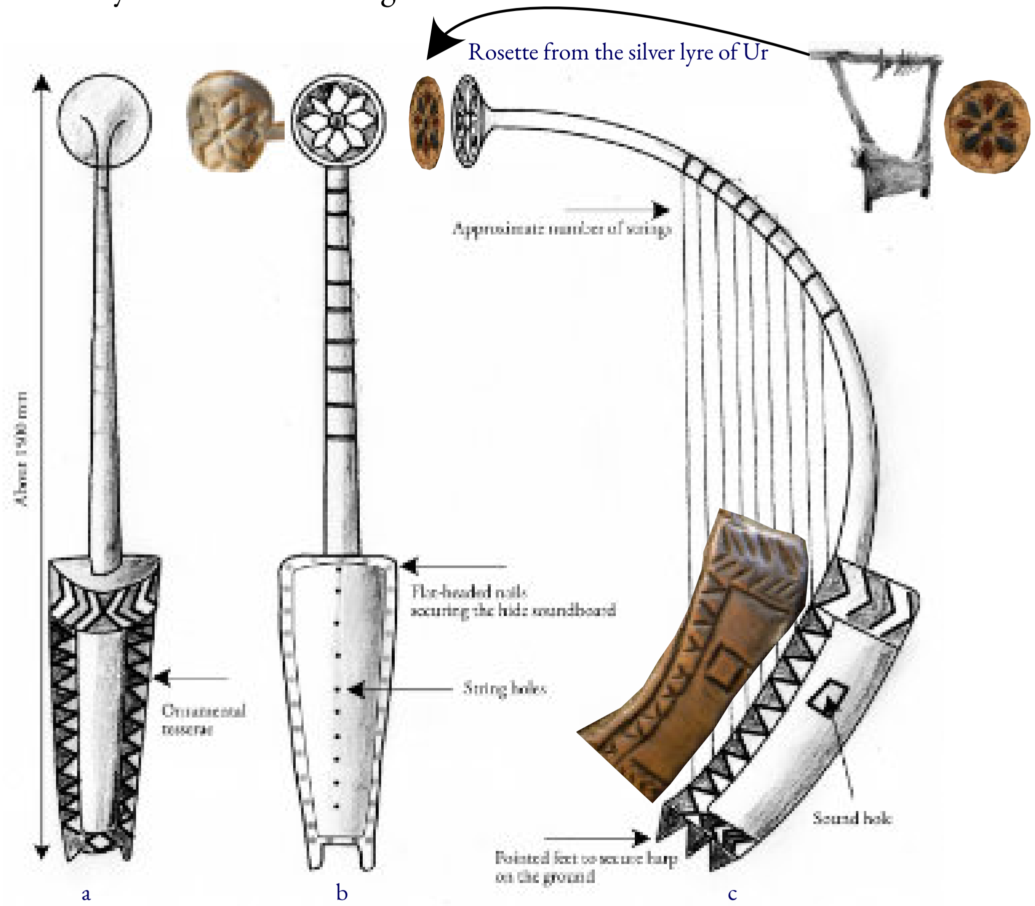

Rosette from the silver lyre of Ur
About 1500 mm
Approximate number of strings
Flat-headed nails securing the hide soundboard
String holes
Ornamental tesserae
Sound hole
Pointed feet to secure harp on the ground
a
b
c

Figure 14. Author's graphic reconstruction of the Elamite harp. a) back view; b) front view; c) lateral view.

The harp is probably the oldest form of stringed instrument and would owe its origin to the archer's bow. A hunter would have observed that if a calabash was gouged out - it might have been his empty water gourd - and placed somewhere along his bow, then the vibrations produced by the string when it was plucked became amplified. This was simple enough and the principle would be as old as the bow itself. It follows that from a crescent-shaped frame, probably one of these typically bent and hollowed out calabashes which constituted the body of the early instrument, a series of strings would have been stretched allowing for space between each one for the fingers to pluck freely without disturbing the other strings. The strings would originally have been made of gut but string made from other fibres might also have been used. Initially the infrastructure would not have allowed for more than a few strings as the iconography generally shows during the Uruk period. It is reasonable to assume that the strings on one instrument were all of the same section as they would have been made of twisted gut from the same species of animal or from other vegetable fibres.

The Sumerian word for 'bow' is shared with that for the earliest form of arched-harp: $^{\text{giš}}$.ban = Akkadian *qaštu* (*tilpānu*), with post-positioned adjective 'tur' meaning 'small' to qualify the musical instrument which would have been smaller than the hunting-bow, or to differentiate it from a larger musical instruments.

This primegenial instrument has survived with ethnomusicology where we find it with the West African musical bow, among others.

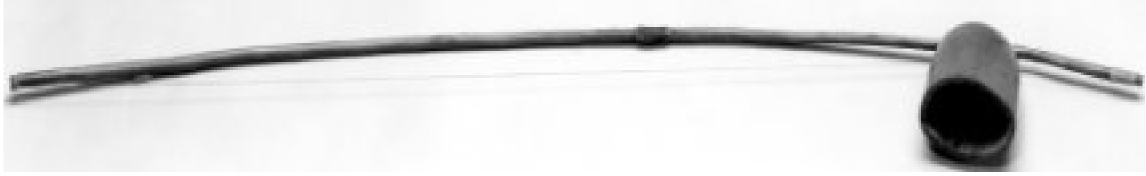


Figure 15. West African musical bow. Late 19th century. Made from Wood, gourd and hemp. In the Crosby Brown Collection of Musical Instruments, 1889. 89.4.496.

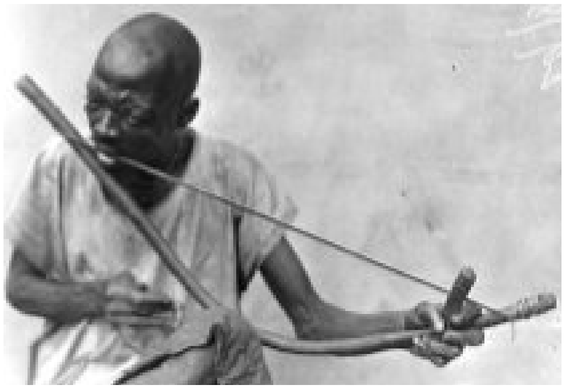


Figure 16. Obu man playing a musical bow in Obubra, Cross River State, Nigeria. Note that the mouth is the resonator,

The musical bow consists of a wooden bow fitted with a string which is set in vibration with a stick. The sound of the string is amplified by a gourd resonator. It is commonly used in Africa and made its way to the Americas where in Brazil it is known as 'berimbau'.

Essentially, the Elamite harp came from the musical bow where the resonator, mouth or gourd, became the sound-box with its sound-board made from raw-hide and with more strings added.

Organology of the Elamite Harp

The bow would have been made from the straight branch of some strong and flexible wood, probably of the same kind which provided wood for archer's bows. The bottom section would be the largest making sure that the top section is not too thin as this would have weakened its stability under the tension of about nine strings. Obviously, the mass/ section of the strings would have been chosen in function of the stability of the bow under tension.

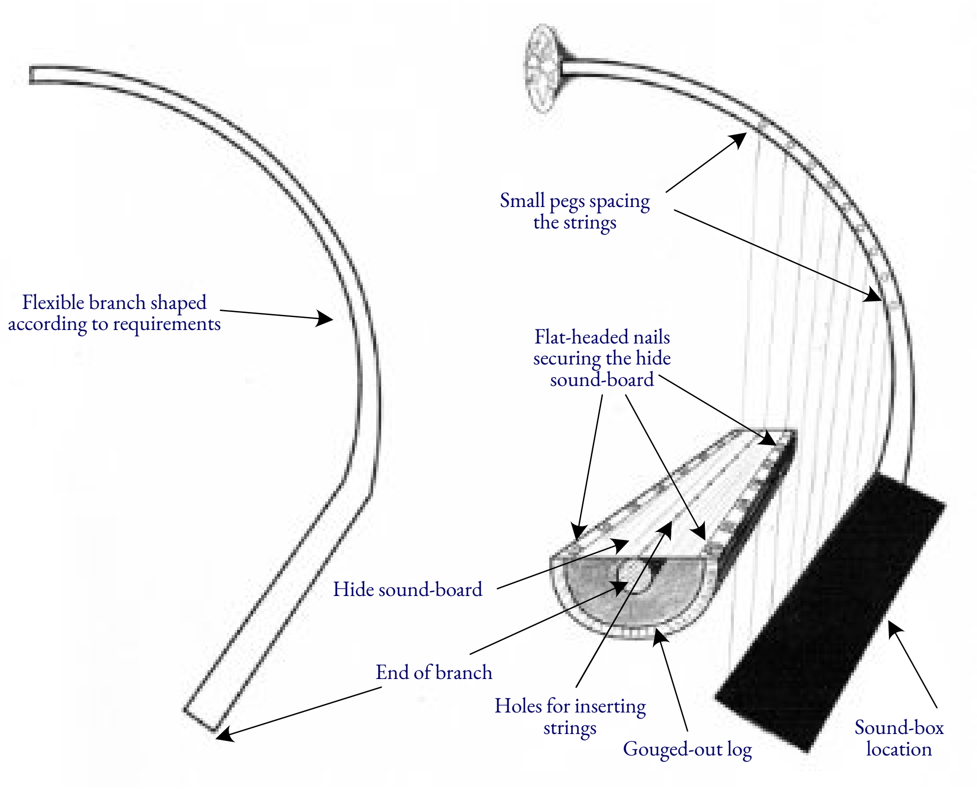
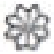

Small pegs spacing the strings
Flexible branch shaped according to requirements
Flat-headed nails securing the hide sound-board
Hide sound-board
End of branch
Holes for inserting strings
Gouged-out log
Sound-box location

Figure 17. Speculative structure of the Elamite harp

Complementary notes

The drawings in figure 17 are only a speculative representation of the Elamite harp. The silver vessel shows a curved sound-board sitting on a curved sound-box. However, we contend that this was an aesthetic decision from the silversmith because a curved hide sound-board would be unstable if it sat on a curved sound-box. However, the soundboard might have been made from wood, making that curvature possible. However, this proposition would be unlikely for the following reasons. Firstly, the strings would have had to be of a small section to avoid imposing too much tension on a slender bow and as a consequence only a very thin sound-board could have amplified the vibrations of the strings. Thin wooden sound-boards under one millimeter of thickness, would not have been easily made at that time, and if such were made, they would have been very unstable under alternations of low to high hygrometric levels resulting in cracks and distortions. This is why raw-hide sound-boards were the preferred media for sound-boards in antiquity. The thickness of hides, especially from fish would have been less a tenth of a millimeter and would have been as a consequence ideal for the sound amplification from the vibrations of thin strings. Secondly, since the bow of the Elamite harp is slender, a series of high tensility strings would have bent the bow excessively. Thus a satisfactory equation between parameters of soundboard thickness, string tensility and bow flexibility would have been essential to a successful organology.

We would also add that the flexibility of the bow would have allowed for pitch-bending, or vibrato effects.

The rosette which is seen both at the end of the Elamite harp and at the end of the yoke of the Sumerian Silver Lyre lyre has more than a decorative purpose. The Sumerian  sign is transcribed as **DINGIR**, with the phonetic value of Sumerian **an**; Akkadian *ilu* meaning 'god'. This sign is also used to indicate the presence of the goddess Inanna/Ishtar.

It is unfortunate that the Elamite language has not yet produced a name for that remarkable instrument.

Complementary Photographs of the Proto-Elamite Drinking(?) Vessel

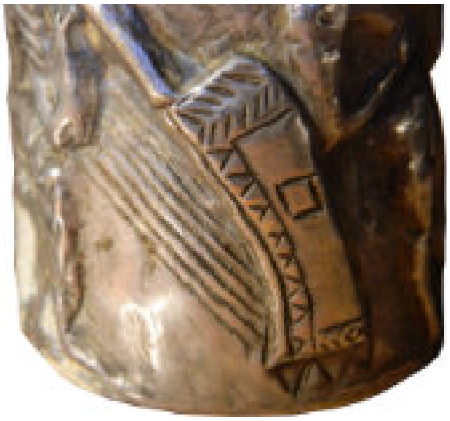


Figure 18. Detail of sound-box. Photo credit Dumbrill

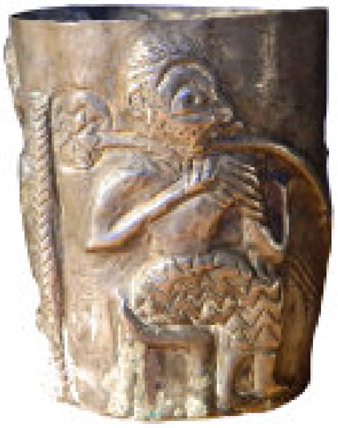


Figure 19. Detail of position of the bow
in relation to the harpist
Photo credit: Dumbrill.

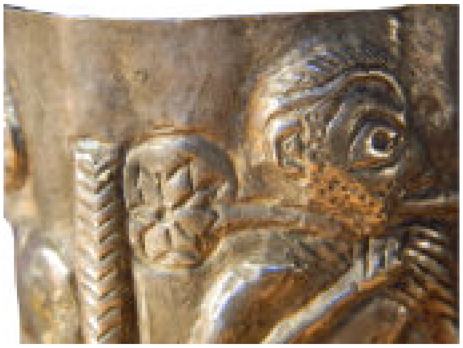


Figure 20. Detail of the rosette. Photo credit: Dumbrill

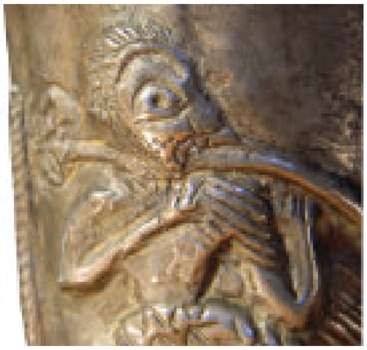


Figure 21. Detail of figure 19 above. Photo credit: Dumbrill

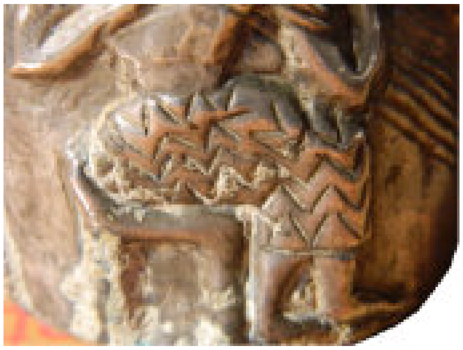


Figure 20. Detail of harpist's kilt. Photo credit: Dumbrill

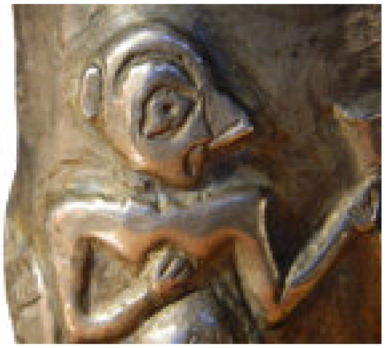


Figure 20. Detail of wine-servant. Photo credit: Dumbrill

Photographic, graphic credits and bibliography

Figures 1, 2.	Photographic credits: Mahboubian Collection.
Figure 3.	Photographic credits: Mahboubian Collection.
Figure 4.	Wall plaque fro Khafajeh, Temple of Sin. Iraq Museum. Photographic credits: Dr. Osama Shukir Muhammed Amin, FRCP (Edinburgh), FRCP(Glasgow), FRCP(Ireland), FRCP(London), FACP, FCCP, FAHA, FRSA. Rashid Subhi Anwar: *Musikgeschichte in Bildern, Band II: Musik des Altertums/Lieferung 2 Mesopotamien*. VEB Deutscher Verlag für Musik Leipzig,1984, p. 54.
Figure 5.	Wall plaque from Khafajah, Oval Temple. Mesilim Period. Iraq Museum. Rashid Subhi Anwar: *Musikgeschichte in Bildern, Band II: Musik des Altertums/Lieferung 2 Mesopotamien*. VEB Deutscher Verlag für Musik Leipzig,1984, p. 55, plate 32. Boese 1971, S. 172 (CT2), Taf, V, 2; Christian 1940, Taf. 273; Delougaz/Jacobsen 1940, S. 42 ff, Abb. 52; Frankfort 1939 b, S. 43 ff., Taf. 107; ders. 1954, S. 32 f., Taf. 33a; Frankfort/Jacobsen/Preußer1930/31, S. 96, Abb. 44; Hartmann 1960, S. 20. Abb. 6; Hrouda 1971, Abb. 33; Moorgat 1935, Taf. XVIII, 1; ders. 1949, Taf. 8 a; ders. 1967, S.36 ff., Abb42; Orthmann 1975, S. 187, Abb. 82; Parrot 1960, S. 133, aBB. 161 A; Pritchard 1954, S. 322, Abb. 604; Schmökel1955, S. 28, Taf. 28; Seton-Williams 1981, Abb. 40; W. Speisser 1952, S. 37, Taf. 15; Stauder 1957, S. 8 ff. Abb. 9; Strommenger 1962, S. 63, Taf. 45.
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Figure 7.	Facial styles.
Figure 8.	Organological differences.
Figure 9.	Impression from a seal cylinder, Ur, ED II. Dumbrill, Richard, *The Archaeomusicology of the Ancient Near East*, Trafford 1005) p. 187, Plate 6. Legrain 1936/169; Collon, 1987/4.
Figure 10.	From a stone plaque, Hish, ED II. Dumbrill, Richard, *The Archaeomusicology of the Ancient Near East*, p. 187, Plate 7. Collon, 1982/47; Collon 1987/6.

Figure 11.	Stone plaque from Kish. ED II. Legrain, 1936/383; Hartmann 13b; Stauder HLS 13 f.; Schmidt-Colinet 1982, 35a-35b; Collon, 1987/935.
Figure 12.	Alabaster Elamite plaque. Susa. Palaeo-Elamite. Louvre sb 41. Dumbrill, Richard, *The Archaeomusicology of the Ancient Near East,* Trafford 2005, p. 226, plate 70. Bousquet, Margaux, Thesis, p. 149, fig. 4.4; Moorgat 1949/16; Boese 14; Schmidt-Colinet 1980/40, Die Musiksinstrumente in der Kunst des Alten Orients; de Gruyter AmWA.
Figure 13.	Erroneous interpretation and Bousquet's interpretation. Credit: Dumbrill/Bousquet.
Figure 14.	Author's graphic reconstruction of the Elamite Harp. Credit: Richard Dumbrill.
Figure 15.	West African musical bow from the Crosby Brown Collection, 1889. 89.4.496.
Figure 16.	Obu man playing a musical bow in Obubra, Nigeria.
Figure 17.	Speculative structure of the Elamite harp.
Figure 18.	Detail of sound-box.
Figure 19.	Detail of position of the bow in relation to the player.
Figure 20.	Detail of the rosette.
Figure 21.	Detail of figure 19 above.
Figure 22.	Detail of harpists kilt.
Figure 23.	Detail of wine-servant.